

REMARKS

This amendment is in response to the Office Action mailed May 20, 2008. Claims 6 and 27-34 have been canceled without prejudice. Claims 1-3, 8-13, 15, 16, 20, 21, 25, and 26 are presently pending. No new matter has been added.

§103 Rejections

Claims 1, 2, 9-13, 15, 16, 20, 21, 25, and 26 were rejected under 35 U.S.C. §102(e) as being anticipated by U.S. Patent No. 6,361,439 to Kawamoto ("Kawamoto") in view of U.S. Patent No. 6,572,475 to Okabe et al. ("Okabe") and U.S. Patent No. 6,959,094 to Cascone et al. ("Cascone"). Claims 3, was rejected under 35 U.S.C. §103(a) as being unpatentable over Kawamoto, Okabe, and Cascone in view of U.S. Patent No. 6,760,050 to Nakagawa ("Nakagawa"). Claim 8 was rejected under 35 U.S.C. 103(a) as being unpatentable over Kawamoto, Okabe, and Cascone in view of U.S. Patent Pub. No. 2005/0179701 to Jahnke ("Jahnke"). Claims 6, 27, 30-34 were rejected under 35 U.S.C. 103(a) as being unpatentable over Kawamoto in view of U.S. Patent No. 5,521,981 to Gehring ("Gehring"). Claim 28 was rejected under 35 U.S.C. 103(a) as being unpatentable over Kawamoto and Gehring in view of Nakagawa. Claim 29 was rejected under 35 U.S.C. 103(a) as being unpatentable over Kawamoto, Okabe, and Cascone in view of Jahnke. The Applicant traverses these rejections.

Claims 6 and 27-34 have been canceled and so the rejections of those claims are moot.

Claims 1, 15, 21, and 26 each recite the recording of spatial sound data in at least two channels of an audio file associated with a fast-moving object where the recorded spatial sound data includes spatial approaching sound data recorded in one channel of the audio file and spatial retreating sound data recorded in another channel of the audio file. None of the cited references teach or suggest recording spatial approaching sound data in one channel of an audio file and spatial retreating sound data in another channel of an audio file.

The Office Action acknowledges that "Kawamoto does not disclose that the recorded spatial sound data includes spatial approaching sound data recorded in one channel and spatial

retreating sound data in another channel of the audio file.” Office Action, p. 3. The Office Action also acknowledges that “Okabe does not explicitly state that the sounds of ‘the engine sound of car A becomes gradually higher (Doppler Effect)’ and ‘the engine sound becomes gradually lower (Doppler Effect)’ are recorded with the Doppler effect. Office Action, p. 3. The Office Action turns to Cascone, however Cascone does not even mention the Doppler effect, much less suggest that sounds be recorded to account for the Doppler effect. Thus, none of the cited references, alone or in combination, teach or suggest recorded spatial sound data that includes spatial approaching sound data recorded in one channel of the audio file and spatial retreating sound data recorded in another channel of the audio file.

In addition, although Okabe discloses making the volume and musical interval of the engine of Car A gradually higher as Car A approaches and making the volume and musical interval of the engine of Car A gradually lower as Car A passes and moves ahead (Okabe, Figure 7), there is no teaching that this is accomplished by recording spatial retreating sound data or spatial approaching sound data. In particular, the changing of the volume of a sound is not related to the Doppler effect. To change the volume of the sound of the car does not require spatial approaching sound data recorded in one channel of the audio file and spatial retreating sound data recorded in another channel of the audio file. The same sound data can be used, only the volume is changed. Okabe does not explain the term “musical interval”, which is also not a term of art. Moreover, although Okabe is silent with respect to how the Doppler effect is implemented, references cited in this and the previous Office Action describe calculating the Doppler effect and shifting the frequency of the sound file accordingly. None of the cited references teach or suggest recorded spatial sound data that includes spatial approaching sound data recorded in one channel of the audio file and spatial retreating sound data recorded in another channel of the audio file.

Furthermore, Cascone teaches away from recording separate sound files. Cascone is directed to computer-implemented techniques for synthesizing sounds of an internal combustion engine. Cascone, Abstract. In particular, Cascone describes using a base vehicle sound that is modified to account for RPM, load, acceleration, gear ratio, and throttle. The sound can be synthesized to produce, for example, wind noise and engine noise. Cascone, Figure 1 and Col.

Moreover, contrary to the assertions of the Office Action, one of skill in the art, applying the clear teachings of Cascone to synthetically modify a sound file, would not record separate approaching and retreating sounds but would synthesize those sounds from a single sound file because Cascone specifically teaches away from using multiple sound files in the Background section of Cascone. As indicated in M.P.E.P. §2141.02 “Prior art must be considered in its entirety, including disclosures that teach away from the claims.” (Emphasis added.) In this instance, Cascone teaches away from the proposed combination of references and teaches away from the claimed inventions. The Office Action can not ignore the clear teachings of Cascone against using separate sound files when a single sound file can be synthetically modified to produce the desired sound.

In view of the above, each of the presently pending claims in this application is believed to be in immediate condition for allowance. Accordingly, the Examiner is respectfully requested to pass this application to issue. If the Examiner has any questions or concerns, the Applicant encourages the Examiner to contact the Applicant's representative, Bruce Black, by telephone to discuss the matter.

Respectfully submitted,

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